

## **SURVIVAL IN THE ARCTIC AND SUB-ARCTIC**

### **Advanced Lecture**

#### **PANIC:**

The greatest danger that can come to a survivor is panic. It saps your strength, prevents your mind from functioning clearly and destroys the desire to survive.

You all may have heard the story of the young pilot who landed in Northern British Columbia and - without opening his emergency kit - shot himself. The case, and there were many more, is worth analysing. First, he would have been picked up the following day. Second, by traveling a few miles down the valley he would have come to a trapper's cabin. He could not have missed it as trapping "lines" or trails radiate in all directions from a trapper's cabin. Thirdly, the country would have furnished ample food for a long journey. Lastly, he had proved his courage under real dangers in the "Battle of Britain". The answer is - he was desperately afraid of the unknown.

#### **THE CURE:**

The cure for panic is found in the training we will give you here and in the training area. It consists in the knowledge and experience you will acquire in caring for your body needs, in capturing food and in traveling over wild country by following evasive and survival procedures.

#### **SURVIVAL PROCEDURES:**

Survival procedures will, of course, vary according to the type of country in which you find yourself.

1. In the desert the climate will not kill you, but you can die of thirst.

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2. In the jungle the climate will not kill you, but you can be bitten by a poisonous snake.

3. In the Arctic there are no snakes and plenty of water - sometimes ~~ice~~ ~~much~~, but the climate can kill you if you do not know how to protect yourself. So let us consider some of the basic survival procedures in relation to the different kinds of country a man might land in.

#### ARCTIC BEACHES:

On all of the world's beaches there is firewood - driftwood. It may not be visible under a winter covering of snow, but at high water line there will be indications if you look for them. There will be dead grasses - excellent for fire starting, when dried and always some form of Northern willow or small bushes where dead branches will be found. In producing a fire, which means life to a survivor, my first word of warning is - do not depend on your cigarette lighters. They can fail to function. Take matches. You can count on them. You will know "what the score is". Carry them in a flat tin can like a prince Albert tobacco can, well taped. Then for your pocket supply, get a match safe, screw top, with a pyrite strip at the base, for striking a spark. You can pad the match safe with a charred rag or cat-tail fuzz to serve a double purpose. Then as you travel, pick up anything that will make good tinder - a field mouse nest, dry wisps of grass or bark - and put it in your pocket. Fire keeps you alive in two ways: It supplies warmth and hot food for your body and dries your clothing. Fire is priority No. 1 in survival in cold areas.

#### SHELTERS: WINTER

Your problem in winter is largely a question of time. If, as an example, you should land during a winter storm after a bailout, you might

have to act quickly. You would have the choice of three procedures to get protection:

1. Erect the one-man tent from the T-1 Kit, take some food and your sleeping bag inside, check your feet for damp socks and hibernate until the storm is over.

2. Put your sleeping bag, food and dry socks inside the one-man tent without pitching it.

3. Roll your socks, food and sleeping bag inside of your parachute.

These three methods will pull you through equally well. Leonidas Seppala, one of the great Northern dog drivers, had a light sail cloth bag that he called his "blizzard bag". When he was caught in a blizzard in an exposed place like the Bering Sea coast, he bedded down his dogs to leeward of his sled and climbed into the bag, tied the pull string, kicked his sleeping bag out flat and slept until the storm ended. A pair of dry socks and a can of sardines packed inside the sleeping bag kept him happy until the weather cleared.

One more word from Seppala - although his dog teamed at 70 below zero when he had to, such as the time he carried diphtheria serum to the sick children at Nome, he said that he never voluntarily traveled when it got down to 30 below zero. Now travel at 30 below can be exceedingly pleasant. In fact when there's no wind and the sun hits during the noon hours, you can take off your shirt and parka and travel in a wool undershirt, but if anything goes wrong at 30 below, you can wish you had stayed in camp.

Next to blizzard procedures come the periods when you have time to make a camp of your own choosing. The best shelters for timberless country

are: The snow house, snow cave, snow wall with parachute fabric wind break or where driftwood poles are available, a three-pole or longfly with a driftwood fire. A snow house is the most comfortable cold weather shelter in timberless country, but to furnish top efficiency it requires a smokeless fire - either fluid heat, gasoline or seal oil. If wood is used, the open type shelter with an encircling wall of snow blocks would be preferable. Sometimes, cliffs or steep bluffs can furnish satisfactory protection, but natural caves are almost invariably cold and drafty.

#### YUKON COUNTRY: WINTER

As you get away from the beaches, you will get more brushwood. In protected spots the willows or other shrubs may reach a respectable size. Open fires will be easier to make and maintain, and you will find poles long enough to enable the erection of a low fly or three-pole shelter.

#### TIMBER: WINTER

In timber areas, and that includes mountain valleys, you will enjoy ample firewood. Your fire problem is over and except when dangerous because of possible proximity of hostile people, will end the heat side of survival, as well as supplying you with all the poles needed for erecting shelters. Having given a quick survey of winter conditions, the next problem is the summer conditions of the zones just considered.

#### SNOW HOUSES:

Unfortunately you will not be able to build and live in snow houses at Saylor Park, but on the first opportunity that presents itself you should take the diagrams furnished to unit levels and learn to build them. "Operation White Tower" - the expedition that climbed Mt. McKinley in 1937 - built snow houses from the diagrams referred to which were dropped to them from a plane.

A snow house ("igloo" is a misnomer, as in the Eskimo language it means any type of shelter), requires sub-zero temperatures to function at top efficiency. You can use the snow house principle in building circular windbreaks of snow blocks. Even without a fire, the body heat of the occupants will raise the inside temperature to a safety level. One of its greatest benefits is that it completely eliminates the power of the wind. A blizzard may be raging outside, but within the snow house there is not a sound of the tempest outside and the flame of a match or candle will burn without a flicker.

#### SNOW CAVES:

During the last war we taught a British regiment to live in snow caves at high altitudes on the glaciers of the Canadian Rockies. They are more unpleasant to build than a snow house, as you get wet while digging out the cave, but they give you splendid protection from the elements and conserve heat.

#### USE OF THE AIRPLANE FOR SHELTER:

In extreme cold the airplane is the poorest type of shelter. Men starved and froze in them during the last war.

Some of the Air Force bulletins advocated the use of the wings for shelters. It is a safe bet that the writer had never felt the force of Arctic winds.

In the Aleutian Islands a party used the wing of a crashed plane to tie their Barron Ground tent to. They also tied their sled dogs to the same wing. During the night a glacier "wally" raised the wing about ten feet and the tent, men and dogs found themselves suspended in thin air. The report made no mention of the language used by the suspended men - or the dogs for that matter!

### FIREMAKING:

Firemaking is one of the most important procedures in survival living. In times of heavy rain, sleet or blizzards it can be difficult. Primitive people, realizing its importance, delegated the building and transportation of fire to certain individuals. In every parth there will be individuals who are poor at starting fires. To begin with you must become fire minded. You must think of your mid-day or evening fire while traveling and keep an eye open for promising tinder that you can put in your pocket. In "Survival on Moving Ice", written by Captain Thomas P. Cunningham, he lays special emphasis on the need of heat tabs. If your area of activity should be in reach of the Arctic Ocean, it would be wise to carry some heat tabs on your person if none are included in the emergency kit furnished to you.

Matches, packed in a flat tin can such as Prince Albert pipe tobacco comes in, and securely taped, will fit in a coat pocket and be worth its weight in diamonds if you have to leave your plane.

Fires can be dangerous in burning equipment. Round wood throws less sparks than split wood. Whenever your clothing or equipment is close to a fire - WATCH IT. (See lecture No. T.S. 6, "Outdoor Fires".)

### ALERTNESS:

In survival you should observe everything about you - the sky, horizon, prevailing winds, the ground with the signs written on it by animals, birds or the elements, the flow of streams and distant hills and mountains with their changes in shape as you see them from different angles.

You may have to travel in fog or at night where the wind or the slope of the land may be your only guide.

**CARE OF CLOTHING:**

Clothing is your principal shelter. Rents, worn or thin spots and grease spots are all destructive to the non-conducting properties of clothing. Mending and patching clothing has an important bearing on survival.

**DON'T SWEAT:**

Sweating in periods of low temperatures is dangerous - at any time it is destructive to clothing.

At the first indication of sweating during extreme cold, take instant steps to reduce body temperature. Even removing your mitts will help, then throwing back your parka hood, pumping your parka to force out moist air and finally removing your parka or outer garment, are regular procedures. Beating the frost out of frozen garments is an easy way of removing moisture.

A frozen sleeping bag is dangerous. Hang it in the sun whenever possible and beat it with two smooth willow wands to fluff up the feathers.

**SNOW BLINDNESS:**

Snow blindness can hit you with no warning. A grey day with no shadows can be as dangerous as a sunny day. Spring can be the worst time. If your eyes begin to hurt, walk behind a companion and keep your eyes on his back. Make emergency glasses by cutting narrow slits in a piece of leather, bark or cloth. Hot compresses made of tea or willow leaves will help. If you wait until you get it, you will be sorry!

**TOOLS:**

Never lose your knife or axe. You can't replace them. Never lay your knife on the ground - put it in a safe pocket. Your axe is your best friend, use it carefully.

When the first Hudson Bay axe reached the Western Indians they thought it was a gift from the "Great Spirit" and it was - to them!

Watch the axe handle for cracks and wrap it smoothly with parachute thread and rub it with pitch from an evergreen tree. The stickiness will wear off the surface quickly.

#### RIVERS:

Every survivor should be a good swimmer. If you can't swim, start taking lessons at the nearest pool. All Northern lands are covered with rivers, lakes and marshes, and getting your equipment across may take good swimming. Glacier streams that are man killers when the sun is hot can be easily crossed late at night.

#### PATIENCE:

Patience is never more necessary than under survival conditions. Evacuation, hunting, fishing, repairs to equipment, the elements - all may demand a high order of mental poise. Remember the Eskimo who stands by a seal hole for hours in sub-zero temperatures in order to secure food and clothing for his people.

#### PERSONAL KIT:

Perhaps the most valuable advice to offer a survivor is the need of carrying on his person during every flight a few small articles that may mean the difference between success and failure. Here they are: Matches in taped can, pocket knife, small whetstone, heat tabs (in Arctic), roll of snare wire, fish hooks and line, and some safety pins.

If you smoke, take tobacco and papers and "roll your own". Tailor-mades go to pieces quickly and are wasteful. The leaves of "Bear berry" (Kinnikinnik) or red willow bark, dried and broken up, can be mixed with your tobacco to make it last longer. Save your butts.



The inner bark filament of the birch bark makes good cigarette papers.

THE END